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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Henry H. Jenkins

Examiner: O. Flores Sanchez

Art Unit: 3724

Serial No: 09/580,412

Filed: May 30, 2000

For: STEEL RULE DIE AND STEEL RULE

9213 Chillicothe Rd.

Kirtland, OH 44094

October 18, 2004

Commissioner for Patents

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EV374927489US

SECOND SUPPLEMENTAL APPEAL BRIEF

Dear Sir:

BRIEF HISTORY

This Second Supplemental Appeal Brief is being filed in response to the Examiner's Action dated October 13, 2004 wherein it was maintained the previous brief (Supplemental Brief) was defective under 37 C.F.R. 1.192(c). This Second Supplemental Appeal Brief incorporated everything from the Supplemental Brief and it makes the corrections requested in the Examiner's Action dated October 13, 2004.

An appeal in this case was filed April 19, 2002 from a final action dated March 8, 2002. The appeal was briefed by applicant on May 10, 2002 and the Examiner in an action dated July 25, 2003 advised applicant the appeal brief was defective for the reasons

stated and advised applicant of the need for a complete new brief. Applicant filed such new brief on August 3, 2002 under the designation "AMENDED NEW APPEAL BRIEF". The Examiner's answer was filed on October 23, 2002 and in this Answer the rejection of claims 1-6 was abandoned and the rejection of claims 7-25 was maintained for the reasons stated in the answer. Applicant filed a Reply Brief on October 29, 2002.

In an action dated September 23, 2003 the Board remanded the case to the Examiner to correct and clarify the record consistent with the Board's remarks contained therein. The Examiner issued an action dated April 13, 2004 as a result of the Board's action of September 23, 2003 in which claims 1-6 were allowed and claims 7-25 were rejected on new grounds. This new rejection was that claims 7-13 were unpatentable over Johnson (U.S. 5,676,032) in view of Sandford (U.S. 6,085,625) under 35 U.S.C. 103(a) and claims 14-25 were anticipated by Johnson (U.S. 5,676,032).

Applicant was given the choice of filing a reply to the rejections or requesting reinstatement of the appeal. Applicant requested reinstatement of the appeal and filed the Supplemental Brief directed by the Examiner. In order that the board not have to refer back and forth between previously filed briefs and the Supplemental Brief, an attempt was made to incorporate everything relevant into that document.

REAL PARTY IN INTEREST

The real party in interest is Henry H. Jenkins, the named inventor.

RELATED APPEALS AND INTERFERENCES:

There are no other appeals or interferences which will directly affect or have a

bearing on the Board's decision in this pending appeal

STATUS OF THE CLAIMS:

The status of Claims 7-25 which are under appeal and which are found in the attached appendix pursuant to 37 CFR Section 1.192(c)(9) is they have all been rejected in the action dated April 13, 2004. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (U.S. 5,676,032) in view of Sanford (U.S. 6,085,625). Claims 14-25 stand rejected under 35 USC 102 (b) as being anticipated by Johnson (U.S. 5,676,032).

STATUS OF AMENDMENTS

No amendments have been made to the claims or the description in the prosecution of this application.

SUMMARY OF THE INVENTION

The present invention solves a problem found in the art which can be broadly stated as expensive steel rule dies (p2, ln 6) used for example in cutting substrates in the paper or packaging industry. In the blister packaging industry it is conventional to have a plurality of identical blisters carrying a product attached to a large piece of cardboard or substrate. It is normally necessary to separate these blisters into discrete individual products to be presented to the purchasing public. This procedure is normally carried out by the use of steel rule dies (p1, lns 9-14).

The construction of steel rule dies to cut the substrate into pieces having square or 90 degree corners is relatively inexpensive however the substrate so cut leaves the corners

easily bent and rendered unattractive to the purchasing public (p1, lns 14-20). Arguably the most attractive corners to be cut are rounded corners however to construct a steel rule die to accomplish this requires the skills of an experienced die maker (p2, lns 1-11).

The present invention solves this problem by the use of a novel steel rule die which can be constructed from a steel member as shown in Figures 7-10 (p4, ln 20-p5 ln 4) which extends generally along a longitudinal axis and which has its opposite ends extending at a 45 degree angle to the longitudinal axis (p3, ln 17- p4, ln 6). The opposite ends of the steel rule extend on opposite sides of the referenced longitudinal axis. This construction enables the quick and relatively inexpensive construction of a steel rule die as illustrated in Figures 2-6 (p4, lns 13-19) and 12-15 (p5, lns 6-16). The economies of the present invention are realized because only identical steel rules need be used (in the case of square dies) to construct the entire steel rule die and these steel rules can be obtained as off the shelf items. With other rectangular shaped dies identical rules of two different lengths need be used. This obviates the need for a skilled die maker as where a die with rounded corners is desired and has the advantage of producing a stronger and more durable corner on cut substrate than that produced by dies designed to cut square corners.

Figure 13 is an illustrative example of an assembly of steel rules made in accordance with the teachings of the present invention and identified by the reference numerals 70A and 70B (p7, lns 19-20; p8, lns 1-3; 5, lns 16-19; p9 lns 3-17) to produce a steel rule die in accordance with the invention. This illustrates that identical steel rules

may be used throughout with the exception if the cutting perimeter is to be other than square, the length of the rules in one direction would be different than in the other direction. This figure illustrates how the ends of adjacent rules engage each other and Figure 12 shows this engagement in much more detail (p10, lns 8-9).

In addition Figure 13 illustrates how the engagement of the rules creates the so-called inside corner 86(See Figure 11)(p9, ln 13- p10, ln 7) in which is located the cylindrical ejection rubber 90 which is used to eject cut pieces of substrate from the die. As described in the specification when the press comes closed the cylindrical shaped ejection rubber is squeezed into the square configuration to prevent cut substrate from being lodged in corners between the round and square configurations and when the press comes open the ejection member again assumes its cylindrical shape pushing cut pieces out of this configuration(p 13, lns 5-7).

ISSUES

Issue 1

Did the Examiner correctly reject Claims 7-13 under 35 USC 103(a) as being unpatentable over Johnson (U.S. 5,676,032) in view of Sanford (U.S. 6,085,625). In his rejection the Examiner stated as follows:

Johnson discloses the invention substantially as claimed including a top board 3, a plurality of rule slots 27, a steel/metal member 4, a cutting edge is defined by a generally triangular shape configuration, a bottom portion and first and second portions extending at approximately a 45 degree angle (9-10), first and second directions, said steel rule engaging the next adjacent steel rule to form approximately a 45 degree angle (see Fig. 2A). Johnson does not show a metal plate. However, Sanford teaches the use of a metal plate 52 for the purpose of increasing the stability of the rule die. It would have been

obvious to one having ordinary skill in the art at the time the invention was made to have modified Johnson's device by providing the metal plate as taught by Sandford in order to improve the stability of the rule die.

Issue 2

Did the Examiner correctly reject Claims 14-25 under 35 USC 102(b) as being anticipated by Johnson (U.S. 5,676,032). In his rejection the Examiner stated as follows:

Johnson discloses the invention including a metal plate (see Fig. 16), a top board 3, a plurality of rule slots 27, steel/metal member 4, a cutting edge is defined by a generally triangular shape configuration, a bottom portion and first and second portions extending at approximately a 45 degree angle (9-10), first and second directions, said steel rule engaging the next adjacent steel rule to form approximately a 45 degree angle (see Fig. 2A).

GROUPING OF THE CLAIMS

In the rejection of Claims 7-25 applicant takes the position that Claims 7, 9, 11, 14, 16, 18, 20, 22 and 24 stand or fall on their own. Claim 8 stands or falls with 7; Claim 10 stands or falls with 9; Claims 12 and 13 stand or fall with 11; Claims 15 and 17 stand or fall with 14; Claim 19 stands or falls with 18; Claims 21 and 23 stand or fall with 20; and Claim 25 stands or falls with 24.

ARGUMENT

Applicant disagrees with the Examiner's position that the reference of Johnson and the combination of the references of Johnson and Sandford as used in the various rejections can be used or combined to bring about the advantages of the invention

disclosed and claimed in this application. As applicant has pointed out, he made a disclosure wherein a single (in the case of square die configurations) or at most two steel rules (in other rectangular die configurations) which can be off the shelf items, can be used to create an entire die by simply arranging the novel steel rules by a relatively unskilled workman. The unique configurations at each end of the steel rules enables them to be arranged in end to end relationship to accomplish the making of a steel rule die which can be quickly and economically accomplished.

Issue 1 has to do with the rejection of Claims 7-13 under 35 USC 103(a) as unpatentable over Johnson in view of Sandford. To the extent that applicant understands the rejection it is disagreed with. The structure the Examiner is apparently referring to in Johnson (Fig. 7, items 9-10) is not a single rule but rather two rules. This type of structure is that used in making steel rule dies which are to cut substrate with curved or rounded corners and which requires a very skilled and experienced die maker to construct. See page 1, line 18 through page 2, line 11 of the present disclosure where this is discussed. Clearly no structure found in Johnson can be arranged to come up with the structure found in Claim 7 for example or any of the claims that are dependent thereon. In the office action of March 8, 2002 the Examiner conceded there is no suggestion in Johnson for a second adjacent steel rule and since the ends of the rule shown in Johnson both extend in the same direction they could not possibly be combined as found in the claim.

The Examiner in his use of the Johnson reference maintains that it shows a steel rule 4 which has first and second portions that extend at approximately a 45 degree angle

(See Johnson's item 9 and 10 shown in Figure 7) and in first and second direction and the steel rule engaging the next adjacent steel rule to form approximately at 45 degree angle and then invites attention to Figure 2A of Johnson.

An examination of Johnson reveals it teaches a steel rule die for cutting a plurality of fixed patterns in accord with the shape of the steel rule. The invention has to do with reducing the quantity of scrap produced by minimizing the amount of gap between adjacent cavities in the steel rule cutting die.

The cavities of Johnson are shown in Figures 1A and 2A with the cavities identified by reference numeral 2. There are 17 cavities shown in Fig. 1A and 20 cavities shown in Fig. 2A. Reference may be had to claim 1 and Figures 3 and 4 to obtain the gist of the Johnson disclosure.

Figure 7 of the Johnson disclosure which the Examiner uses in his rejection (see column 8 lines 5-23) is simply a disclosure of welding two steel rules 9 and 10 together so as to eliminate the gap between rules and then eliminate some of the scrap in use of a die.

Items 9 and 10 in Figure 7 of Johnson are clearly two separate steel rules which have been welded together so as to eliminate the gap referred to above and do not meet the terms of claims 7-13. The disclosure of Johnson including Figure 7 does not teach or show the steel rules of the claims including the longitudinal axis and the end portions which extend at approximately 45 degrees thereto and on opposite side of the axis. The alternate arranging of adjacent rules called for in the claims is also not seen in Johnson. The Examiner's reference broadly to Fig. 2A of Johnson as showing alternate arrangement

of the steel rules of the claims is not understood. Applicant does not believe there is such an arrangement in Johnson. All that appears to be shown are the 20 cavities identified by the numeral 2. Sanford does show a metal plate 52 but this does not make up for the deficiencies in the rejection as noted above.

Claim 9 is urged to be separately patentable even though ultimately dependent on Claim 7. This claim defines the structure shown in Figure 12 which defines the ends of the steel rule. This structure is not shown or suggested in the art.

Claim 11 is believed to be separately patentable in that it contains most of the structure urged for the allowance of Claim 7. In addition it is allowable over the art and is separately patentable in the recitation that the first end portion of a given steel rule engages the next adjacent steel rule to form a 45 degree corner. Claim 11 is believed to be separately patentable.

Issue 2 is the rejection of claims 14-25 as anticipated by Johnson (U.S. 5,676,032). In this rejection as explained by the Examiner the exact same explanation is given as in the previous rejection of claims 7-13 discussed above. In this rejection the Sanford reference is not referred to. Applicant incorporates by reference all of the argument given in the discussion of claims 7-14 except the discussion of Sanford.

Specifically claim 14 is believed to be separately patentable for the additional reasons that it recites the structure of the novel steel rule of the present invention in terms not shown or suggested in the art of record. At best Johnson shows a steel rule but lacks essentially all of the remaining structure contained in this claim. The ends of the rule

shown in Johnson do not extend at a 45 degree angle and they extend on the same side of any axis that could be used to describe the rule. Claim 14 differentiates over the art. The rule defined in Claim 14 can be used to construct the steel rule die defined for example in Claim 11 whereas by no stretch of the imagination could the steel rule shown in Johnson be so used.

Claim 16 is believed to be separately patentable over the claims on which it is dependent in that it recites that the end portions are integral with the steel member and extend at a 45 degree angle to the longitudinal axis. This is not shown in the art and particularly in Johnson.

Claim 18 is believed to be separately patentable in that it describes the structure that is illustrated for example in Figure 12 which structure is not shown in the art and particularly in Johnson. The error in the rejection is that Johnson does not show or suggest the elements called for in this claim for example the structure of the terminating ends of the first and second end portions. This claim is allowable because this structure is not shown or suggested in Johnson.

Claim 20 is believed separately patentable since it describes the rule of the present invention which can be used to construct the novel die disclosed. The first end portion is said to extend at an angle to the extent of the metal member and in a first direction which patentably distinguishes over Johnson.

Claim 22 is separately patentable in that the end portion is said to be integral with the steel member and extends at a 45 degree angle to the extent of the steel member which

also patentably distinguishes over Johnson.

Claim 24 is believed to be separately patentable in that it describes the structure illustrated in Figure 12 which is not shown or suggested in Johnson and which makes this claim separately patentable. The error in the rejection is that Johnson does not show or suggest the elements called for in the claim for example the structure of the terminating end of the first end portion which is formed on an angle to the vertical. This claim is allowable because the structure is not shown or suggested in Johnson.

APPENDIX

The rejected Claims 1-25 are set forth in the attached appendix.

SUMMARY

Regarding the Johnson reference it shows two rules welded together. As pointed out above the rule disclosed in Johnson is the type of rule described in applicant's specification which is used to cut substrate which has rounded corners and as pointed out requires a die maker with much skill and experience to make. This results in a die which is relatively expensive because of the skill required of the die maker as well as the time factor. As pointed out above one cannot take a plurality of rules as disclosed in Johnson and assemble them as taught in the present application to produce a steel rule die quickly and inexpensively and with relatively unskilled help.

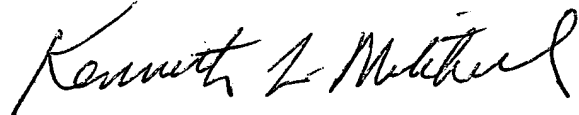
For the above referred to reasons discussed in detail under the headings of Issues 1 and 2, it is submitted the Examiner's final rejection of Claims 7-25 is incorrect and reversal is respectfully requested.

FEE

A check in the amount of \$150.00 for filing a brief in support of an appeal pursuant to 37 CFR Section 1.17(c) was included with the filing of the original Appeal Brief and so therefore it is believed no additional fee is due. If applicant is mistaken, please charge Woodling, Krost and Rust deposit account No. 23-3060 for any additional fees required. This brief is being filed in triplicate.

Respectfully submitted,

WOODLING, KROST AND RUST

A handwritten signature in cursive script, reading "Kenneth L. Mitchell".

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APPENDIX

7. A steel rule die including in combination

a metal plate,

a top board located on top of said metal plate,

a plurality of rule slots in said top board,

a steel rule in said slots,

each of said steel rules being generally flat to fit in a slot and having a bottom portion adjacent said metal plate and a top portion formed into a cutting edge residing above the surface of said top board,

each said steel rule extending on a longitudinal axis and having first and second end portions,

said first end portion extending at approximately a 45° angle to said longitudinal

axis and on one side of said axis,

said second end portion extending at approximately a 45° angle to said longitudinal axis and on another side of said axis,

said steel rules in said rule slots being arranged alternately with said first end portion of a given rule located adjacent said second end portion of a next rule adjacent said given rule.

8. A steel rule as claimed in claim 7 wherein said cutting edge is defined by a generally triangular shaped configuration.

9. A steel rule die as claimed in claim 8 wherein the terminating end of each of said first and second end portions of said steel rule is formed on an angle to the vertical whereby the cutting edge thereat extends axially a greater distance than other portions of the terminating end.

10. A steel rule die as claimed in claim 9 wherein slots are formed extending from said bottom position into said steel rule to support said steel rule.

11. A steel rule die including in combination

a metal plate,

a top board located on top of said metal plate,

a plurality of rule slots in said top board,

a steel rule in said slots,

each of said steel rules being generally flat to fit in a slot and having a bottom portion adjacent said metal plate and a top portion formed into a cutting edge residing

above the surface of said top board,

each said steel rule extending on a longitudinal axis and having first and second end portions,

said first end portion extending at approximately a 45° angle to said longitudinal axis and on one side of said axis,

said first end portion of a given steel rule engaging a next adjacent steel rule to form a 45° angled corner.

12. A steel rule as claimed in claim 11 wherein said cutting edge is defined by a generally triangular shaped configuration.

13. A steel rule die as claimed in claim 12 wherein slots are formed extending from said bottom portion into said steel rule to support said steel rule.

14 A rule for use in a steel rule die including a metal member having upper and lower edge portions and first and second end portions,

said first end portion extending at an angle to the extent of said metal member and in a first direction,

said second end portion extending at an angle to the extent of said metal member and in a second direction,

said upper edge portion having a cutting edge formed thereon.

15. A rule as claimed in claim 14 wherein said rule is steel and is generally flat in configuration.

16. A steel rule as claimed in claim 15 wherein said first and second end portions

are integral with said steel member and each formed at approximately a 45° angle to the extent of said steel member and in a direction opposite to each other.

17. A steel rule as claimed in claim 15 wherein said cutting edge is defined by a generally triangular shaped configuration.

18. A steel rule as claimed in claim 17 wherein the terminating end of each of said first and second end portions is formed on an angle to the vertical whereby the cutting edge thereat extends axially a greater distance than other portions of the terminating end.

19. A steel rule as claimed in claim 18 wherein slots are formed extending from the lower edge portion into said steel member to support said steel rule when used in a steel rule die.

20. A rule for use in a steel rule die including a metal member having upper and lower edge portions and first and second end portions,

said first end portion extending at angle to the extent of said metal member and in a first direction, and

said upper edge portion having a cutting edge formed thereon.

21. A rule as claimed in claim 20 wherein said rule is steel and is generally flat in configuration.

22. A steel rule as claimed in claim 21 wherein said end portion is integral with said steel member and is formed at approximately a 45° angle to the extent of said steel member.

23. A steel rule as claimed in claim 21 wherein said cutting edge is defined by a

generally triangular shaped configuration.

24. A steel rule as claimed in claim 23 wherein the terminating end of said first end portion is formed on an angle to the vertical whereby the cutting edge thereat extends axially a greater distance than other portions of the terminating end.

25. A rule as claimed in claim 24 wherein slots are formed extending from the lower edge portion into said steel member to support said steel rule when used in a steel rule die.